A NEW SPECIES OF AMBLYSEIUS BERLESE (ACARINA: PHYTOSEIIDAE) FROM APPLE IN AUSTRALIA

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Synopsis

A new species of mite (Acarina: Phytoseiidae) is described from apple in New South Wales, Australia: Amblyseius lentiginosus Denmark and Schicha n. sp. is closely related to Amblyseius rhabdus Denmark.

Introduction

The species of phytoseiid mite described in this paper was collected in commercial orchards of Granny Smith apple trees at Bathurst, New South Wales. This species was also found in an orchard of young, unbearing apple trees and on single neglected "backyard trees" during the years 1971 to 1973.

Measurements listed are the mean of three specimens in microns.

Genus Amblyseius Berlese

Amblyseius Berlese, 1914, Redia, 10: 143. Type of the genus:

Zercon obtusus Koch, 1839, by indication of Berlese (1914).

Amblyseius (Amblyseius) lentiginosus, n. sp.

(Figs 1–8)

Diagnosis. Amblyseius lentiginosus n. sp. is closely related to A. rhabdus Denmark (1965), but the latter has no teeth on the movable digit of the chelicerae and the spermathecal atrium is more rod-like. A. lentiginosus has lunate areas and numerous pores on the dorsal shield, three teeth on the movable digit of the chelicerae, and the spermathecal atrium is about twice as wide as in A. rhabdus.

FEMALE

Dorsum: The dorsal shield (Fig. 1), length 352-360, width at L₄ 199-202, is well sclerotised and smooth, with 11 pairs of pores and 17 pairs of setae, six of which are dorsal, two median (one anterior and one posterior), four prolateral and five postlateral. The setae measure in length:

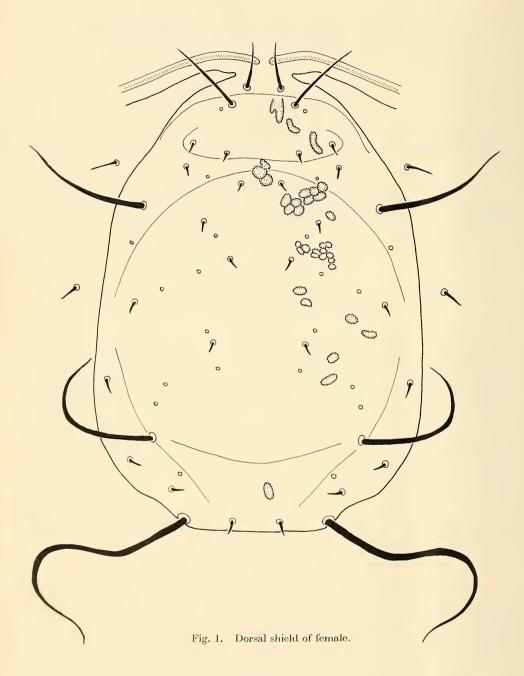
and five postateral. The sectac inclusion in Eugen. D₁=30-36; D₂=6; D₃=3; D₄=7; D₅=7; D₆=7-8; L₁=55-58; L₂=7-9; L₃=6-7; L₄=85-90; L₅=7; L₆, L₇ and L₈=7-9; L₉=203-210; M₁=3-4; M₂=123-130. Setae D₁, L₁ and L₄ are longer than the distances between their bases and the bases of the setae following next in line. Setae S₁, 14-16 and S₂, 9-10 long, are located on the dorsal interscutal membrane.

The peritremes extend forward beyond the bases of setae D_1 .

Venter: The sternal shield (Fig. 2) measures 116–130 in length and 101–109 in width. It bears three setae and two pairs of pores near the first and the third pair of setae. The fourth pair of setae is placed on metasternal shields which each bear a caudomedial pore. The genital shield (Fig. 2), width 80–100, is normal with a pair of setae and a straight posterior margin. The smooth, pentagonal, ventrianal shield (Fig. 2) is 116–130 long and 101–109 wide. It is

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provided with three pairs of preanal setae and a pair of pores caudomedial to the third pair of setae.

Spermatheca: (Fig. 3) The major duet is nearly as broad as the tube-like cervix; an atrium is not distinct.

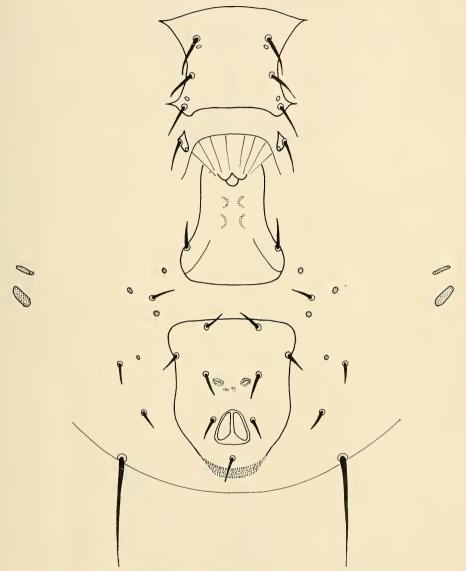


Fig. 2. Venter (sternal shield, genital shield, ventrianal shield) of female.

Chelicera: (Fig. 4) The fixed digit is 40–41 long and bears seven teeth and a pilus dentilis. The movable digit is 50–51 long and is provided with three teeth.

Legs: (Fig. 5) Sge IV, 90-101; Sti IV, 91-94; St IV, 75-87.

Peritrematal Shield: (Fig. 6).

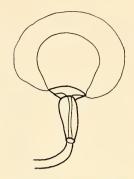


Fig. 3. Spermatheca of female.

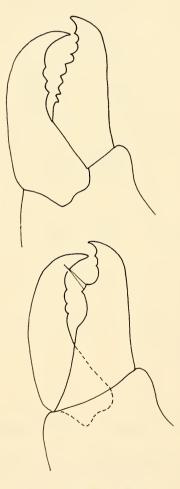


Fig. 4. Chelicera of female.



Fig. 5. Leg IV of female.

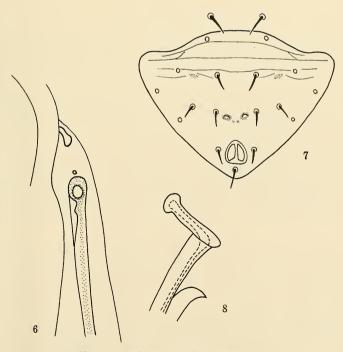


Fig. 6. Peritrematal shield of female.
Fig. 7. Ventrianal shield of male.
Fig. 8. Spermatodactyl of male.

MALE

Dorsum: The dorsal shield measures 283 in length and 199–202 in width at L₄. The chaetotaxy of the shield resembles that of the female but the setae are shorter. D₁=22–23; D₂=5–7; D₃=3–5; D₄=3–6; D₅=3–6; D₆=6–7; L₁=38–43; L₂=3–7; L₃=3–7; L₄=72–75; L₅=7; L₆=7; L₇=5–7; L₈=6–7; L₉=152–154; M₁=4–5; M₂=87.

Venter: The ventrianal shield (Fig. 7), length 109 and width 159, bears three pairs of preanal setae and four pairs of pores in addition to a fifth pair which is caudo-medial to the third pair of setae.

Spermatodactyl: (Fig. 8) The lateral process of the foot (length 7–9) is rounded; the toe is a rounded knob.

Holotype. Female from Bathurst, N.S.W., Australia, 28.i.1971, E. Schicha, on apple trees. Deposited in Biological and Chemical Research Institute, Rydalmere, N.S.W., Australia.

Paratypes. Six females and six males taken from the same locality as the holotype. Deposited as follows: two females and two males at Biological and Chemical Research Institute, Rydalmere; two females and two males at Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Gainesville, Florida, U.S.A.; two females and two males at the South Australian Museum, Adelaide, S.A., Australia.

Reference

DENMARK, H. A., 1965.—Four new Phytoseiidae (Acari : Mesostigmata) from Florida. Fla Ent. 48: 89-95.